

Safety Evaluation by the DOE Regulatory Unit
of Proposed Authorization Basis Amendment Request
ABAR-W375-99-00009
to the Safety Requirements Document for the
Tank Waste Remediation System - Privatization Project
(DOE Contract DE-AC06-96RL13308)

1. INTRODUCTION

In accordance with the requirements of RL/REG-97-13, *Regulatory Unit Position on Contractor Initiated Changes to the Authorization Basis*, Rev. 5, BNFL submitted an Authorization Basis Amendment Request (ABAR) to make revisions to the Safety Requirements Document (SRD).¹ The ABAR consolidates the requirements contained in various Integrated Safety Management Plan (ISMP) sections, that are presently cited as *ad hoc* implementing standards for RAMI, into a new appendix to the SRD. The essential elements of the ABAR are:

- Safety Criteria 4.2-3 is being revised to remove reference to the following ISMP sections as implementing standards:
 - ISMP Section 1.3.10, Classification of Structures, Systems, and Components
 - ISMP Section 3.13, Reliability, Availability, Maintainability, and Inspectability (RAMI)
 - ISMP Section 3.7.1, Passive Features

Section 3.13 is being replaced by a new Appendix in the SRD entitled “Reliability, Availability, Maintainability, and Inspectability (RAMI).” Section 1.3.10 is being deleted from this safety criteria as it is redundant to requirements of SRD Appendix A, Implementing Standard for Safety Standards and Requirements Identification. Section 3.7.1 is being deleted from this safety criteria as it is redundant to section 3.13 which is being replaced by the new SRD appendix and SRD Appendix A.

- Safety Criteria 4.4-4 is being revised to remove reference to Section 3.13 as the implementing standard and is being replaced by the new SRD appendix entitled, “Reliability, Availability, Maintainability, and Inspectability (RAMI)”.

The proposed amendment is administrative in nature. That is, it deals with the reorganization and relocation of material in authorization basis documents.

2. BACKGROUND

BNFL is required by contract to conform to certain top-level standards, RL/REG-96-0006, *Top-Level Radiological, Nuclear, and Process Safety Standards and Principles for TWRS*

¹ 00-RU-0321, letter from A. J. Dobson to D. C. Gibbs, “Contract No. DE-AC06-96RL13308 - W375 - Authorization Basis Amendment Request ABAR-W375-00-00009,” dated April 12, 2000.

Privatization Contractors, and to define subordinate standards for implementing the top-level standards. In several cases, BNFL chose to use sections of the ISMP as *ad hoc* subordinate standards, rather than specify nationally or internationally recognized consensus standards. In this ABAR, BNFL is replacing several ISMP-based subordinate standards with equivalent standards referenced in SRD appendices.

3. EVALUATION

The BNFL analysis of the proposed changes documented in the ABAR provides the linkage between the current *ad hoc* standards and their incorporation into other portions of the Authorization Basis, primarily SRD Appendices A and X.² The BNFL analysis also shows all changes to the SRD text.

In order to establish the acceptability of the proposed changes, the RU reviewed the current subordinate standards against the proposed standards of existing Appendix A and the newly proposed Appendix X. Each change was examined individually. Specifically, the RU examined the BNFL rationale for each change, with an emphasis on the equivalency of the current subordinate standard and the proposed standard. The RU also examined how the existing Appendix A and newly proposed Appendix X incorporated the implementing language previously contained in the ISMP. In particular the RU examined whether the changes, taken together, represented a decrease in commitment.

The RU determined that the existing Appendix A and the newly proposed Appendix X are equivalent to the existing *ad hoc* standards and do not represent a decrease in commitment. The RU also found that the consolidation of material into the two appendices simplifies and clarifies the explanation of how BNFL intends to implement RAMI.

Finally, the RU examined all changes against the previous analyses of the technical areas covered by this ABAR contained in the original evaluation reports of the BNFL SRD,³ ISMP,⁴ and ISA⁵ to ensure that the proposed standards address any noted inadequacies. The RU also considered the current project status, including ongoing discussions with BNFL on correcting known deficiencies. The RU found no inconsistencies among the original evaluation reports, activities to correct known deficiencies and the proposed changes.

4. CONCLUSION

On the basis of the considerations described above, the RU has concluded that there is reasonable assurance that the health and safety of the public, the workers, and the environment will not be adversely affected by this proposed amendment. The proposed amendment complies with applicable laws, regulations, and requirements, and conforms with DOE-stipulated top-level

² Next available appendix in the SRD

³ RL/REG-98-01, *DOE Regulatory Unit Evaluation Report of the BNFL Inc. Safety Requirements Document*, Section 3.2.3.2.7, "Reliability, Availability, Maintainability, Inspectability (RAMI)," Rev. 0, 1998.

⁴ RL/REG-98-03, *DOE Regulatory Unit Evaluation Report of the BNFL Inc. Integrated Safety Management Plan*, Section 3.2.2.7.7, "Reliability, Availability, Maintainability, Inspectability," Rev. 0, 1998.

⁵ RL/REG-98-09, "DOE Regulatory Unit Initial Safety Evaluation Report of the BNFL Inc. Initial Safety Assessment," Section 3.8, "CORAMI," Rev. 0, 1998.

safety standards and principles. The amendment request includes certification that the proposed revision to the SRD was derived using the RU approved process described in DOE/RL-96-0004, *Process for Establishing a Set of Radiological, Nuclear, and Process Safety Standards and Requirements for TWRS Privatization*. Accordingly, this review concludes that the proposed amendment to the authorization basis is acceptable.